

## CLIMATOLOGICAL DATA FOR MAY, 1913.

## DISTRICT NO. 12, COLUMBIA VALLEY.

EDWARD A. BEALS, District Editor.

The weather during the month was on the whole favorable for agriculture, transportation, and construction work. No very high nor very low temperatures occurred. The forepart of the month was cool, but no damaging frosts formed, and the last week or ten days were warm. During the warm period the snow in the mountains melted rapidly and the smaller tributaries of the Columbia River reached flood stages and inundated large areas of bottom land. The main stream rose rapidly, but no flood stages were reached except in the neighborhood of Vancouver and Portland, and at those places ample warnings prevented any damage being done to movable property. There were no serious delays to transcontinental traffic, but some interruptions took place on branch lines, especially in Montana and Idaho. During the last half of the month there were many thunderstorms in the mountain regions, and some of them were attended by heavy rains, partaking of the nature of cloudbursts. These cloudbursts did damage locally, but they occurred in such sparsely settled localities as to attract little attention. On the whole the soil is well moistened, notwithstanding the slight deficiency in rainfall and the absence of sufficient precipitation in April to offset the drying winds of that month. This condition was brought about not so much on account of the quantity of rainfall in May, but in consequence of its falling opportunely in the principal agricultural sections. In the dry-farming districts the deficiency noted in April has not been made up, and the outlook is somewhat discouraging.

## TEMPERATURE.

The forepart of the month was characterized by low temperatures in nearly all sections and the closing days by unusually high temperatures. Frosts formed in exposed localities and caused some damage to fruit and garden truck, but as a rule they were not heavy enough to cause much harm. Minimum temperatures below freezing were recorded at all Montana stations and at a large number of stations in Washington, while in Idaho there were several pronounced cold periods, during which the temperature at many stations fell as low as has every been recorded at the same point in May. Temperatures below freezing were also recorded at many Oregon stations on the 1st.

The high temperatures of the last decade in a measure compensated for the lack of warmth in the first two decades and brought the mean temperature for the district to slightly above normal. During this period of high temperature maxima of 90° and above were recorded on the 23d in Wyoming, on the 26th in Montana, Idaho, and Oregon, and on the 31st in Washington and Oregon.

The mean temperature, as determined from the records of 273 stations, was 54.3°, or 0.4° above normal. The

highest temperature, 99°, was recorded on the 26th, at Glens Ferry, in southwestern Idaho, at an elevation of 2,569 feet, and the lowest temperature, 10°, occurred on the 1st, at Clift and Whitaker, which are contiguous stations in central Oregon, at elevations of 4,300 and 4,250 feet, respectively. The greatest daily range in temperature was 59°, at Bedford, Wyo., at an elevation of 5,900 feet. The highest monthly mean, 63.2°, was recorded at Guffey, Idaho, and the lowest monthly mean, 45°, at Landore and Pierson, Idaho, and Bumping Lake, Wash.

The following table shows for comparative purposes the mean temperature and departure from normal for the States of Oregon, Washington, and Idaho, and those portions of Montana and Wyoming in district No. 12 for the month of May during the last five years:

Years.	Oregon.		Washington.		Idaho.		Montana.		Wyoming.	
	Mean.	De-pature.	Mean.	De-pature.	Mean.	De-pature.	Mean.	De-pature.	Mean.	De-pature.
1909.....	51.8	-2.4	53.4	-2.2	50.2	-2.8	47.3	-3.0	41.4	-2.8
1910.....	57.2	+3.3	58.1	+2.5	54.9	+2.0	53.5	+2.7	45.7	+0.9
1911.....	51.2	-3.0	52.7	-2.7	50.7	-2.4	47.6	-2.2	44.2	-0.3
1912.....	55.2	+0.8	56.9	+1.6	52.7	-1.3	50.8	-0.4	42.2	-2.4
1913.....	54.4	+0.7	54.6	-0.3	55.2	+1.6	50.6	-0.2	48.2	+2.3

## PRECIPITATION.

The precipitation was irregularly distributed and generally less than the average in nearly every portion of the district, except in western Idaho, a few localities in Washington, and in northeastern Oregon, where it was somewhat above normal. The first week was practically without rain, except in the coast and Sound portions, and there was a general absence of precipitation from the 20th to the 25th and from the 28th to the close of the month. The wet periods were from the 8th to the 18th and on the 26th and 27th. The snowfall during the month was over 14 inches at Hat Creek, Mont., at an elevation of 6,000 feet; 3 inches fell at Alta, Wyo., and 2.5 inches in the mountains of southwestern Oregon. At the end of the month the snow was still of considerable depth in the gulches and on the northern slopes of the high mountain peaks, but the warm weather of the last few days caused rapid melting, and a consequent rise in the waters of the principal rivers and their tributaries.

The average precipitation for the district, as computed from the records of 375 stations, was 1.77 inches, which was 0.33 inch less than normal. The greatest 24-hour rainfall, 1.98 inches, occurred at Wallace, Wash., on the 9th. The greatest monthly amount, 8.03 inches, was recorded at Quinault, a station in the Olympic Mountains near the coast, in the State of Washington. Only a trace of precipitation was reported from Mountainhome

and Sunnyside, in the Snake watershed of southwestern Idaho.

The average monthly precipitation with departure from normal for the month of May during the last five years is also shown in the following table, for the States of Oregon, Washington, and Idaho and for those portions of Montana and Wyoming in district No. 12:

Years.	Oregon.		Washington.		Idaho.		Montana.		Wyoming.	
	Mean.	De-par-ture.	Mean.	De-par-ture.	Mean.	De-par-ture.	Mean.	De-par-ture.	Mean.	De-par-ture.
1909.....	1.79	-0.38	1.82	-0.62	1.52	-0.25	1.56	-0.81	2.62	-0.37
1910.....	1.66	-0.68	1.56	-0.64	1.42	-0.42	2.20	-0.43	2.09	-1.60
1911.....	3.46	+1.38	3.33	+1.10	2.44	+0.15	2.09	-0.95	2.24	-0.22
1912.....	2.72	+0.21	2.04	-0.08	2.20	+0.41	2.39	+0.06	2.44	-0.62
1913.....	1.77	-0.41	1.99	-0.30	1.50	-0.03	1.62	-0.81	2.34	-0.60

#### THE RIVERS.

The rivers were above normal in May at nearly all points. The annual rise in the Columbia and Snake Rivers began early in the month. Up to the 5th and 6th these streams had been falling, but thereafter there was a continuous increase of flow, and the highest stages of the month in the Columbia occurred on the 31st, with the water still rising. In the Snake the highest water passed Lewiston on the 28th and Riparia on the 29th. The stages recorded on these dates at Lewiston and Riparia, 19.7 and 18.6 feet, respectively, were the highest since 1899. On the Pend Oreille and Kootenai Rivers, although the highest water had not occurred by the end of May, the stages reached on the 31st were above the average high-water mark. The Columbia above the Snake River confluence had not reached the average height of the annual flood, but below the Snake River, and due to its influence, the stages on the 31st exceeded the flood heights of the three preceding years.

The Cascade Locks were closed on May 30 at a stage of 28.9 feet and with water at The Dalles reading 35.9 feet on the gage. The 15-foot mark at Portland, which is reckoned as the flood stage, was reached by back water from the Columbia on May 25. The stage at the close of the month was 20.4 feet. All the lower docks were flooded and water was beginning to seep into cellars within a few blocks of the water front. Inundation of

low-pasture and truck land along the lower Columbia was imminent, and dairymen were preparing to move their stock to other pasturage.

Financial loss due to the rising water was slight up to the close of May, and at that time the most threatening aspect of the flood was in its possible effect on the railroad and telegraph companies operating along the lower Columbia, since roadbeds and poles would be in danger should the water go much higher.

#### MISCELLANEOUS PHENOMENA.

Thunderstorms, in some instances accompanied by hail, were of frequent occurrence in the western part of the district during the second and third decades. Some damage was caused by hail on the 9th in Pierce County, Wash., and the cooperative observer at Crescent, Oreg., reported that "during a thunderstorm on the 26th hailstones fell about the size of ordinary hazelnuts. These stones were very hard, cutting the foliage and seed cones from the pine trees to a considerable extent. Settlers can give no record of any such storm occurring in the past."

Killing frosts during the first decade were reported from a few scattered stations in Montana, Idaho, and Oregon; otherwise the month was exceptionally free from frosts of this character.

The prevailing winds were from the northwest, and while they were frequently high in the eastern part of the district, they were not of a destructive nature. The highest velocity for any five-minute period was 56 miles from the southeast, at North Head, Wash., on the 9th.

Lightning was the cause of one death, at Nampa, Idaho, and was also of considerable damage to property in that place.

A belated report from the special meteorological observer at Medford, Oreg., confirms the statement in the March, 1913, summary from the cooperative observer at Harbor, Oreg., relative to an earthquake shock experienced on the 15th of that month. The report from Medford states that—

On March 15, at 12.40 p. m., I felt two distinct shocks, the first being about one second in duration and the second about three seconds in duration. My office building building rocked considerably, the most perceptible shock being felt in the elevator cage. A few other people in the building noticed the quake, as well as others in different parts of the city and valley.

TABLE 1.—Climatological data for May, 1913. District No. 12, Columbia Valley.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.					Precipitation, in inches.					Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Sky.	Prevailing wind direction.	Observers.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.							
<i>Montana.</i>																					
Anaconda.	Deer Lodge.	5,300	11	47.9	-0.1	52	26	19	1	40	1.75	-0.45	4.0	14	6	21	4	sw.	C. D. Demond.		
Butte.	Silver Bow.	5,716	18	48.6	+0.3	51	26	17	1	37	1.57	-0.66	0.32	2.0	9	5	15	11	sw.	J. R. Wharton.	
Columbia Falls.	Flathead.	3,100	17	50.4	-0.5	53	31	22	1	45	1.35	-1.69	0.36	0	10	13	8	10	sw.	J. M. Grist.	
Como.	Ravalli.	3,700	4	54.6	-	93	26	27	1	41	1.29	-	0.34	2.0	11	10	12	9	sw.	Hiram Platt.	
Dayton.	Flathead.	8	51.2	+0.3	-	80	31	24 <sup>a</sup>	1	41 <sup>b</sup>	1.40	-	0.30	0	7	18	0	13	sw.	A. J. Ruechell.	
Deer Lodge.	Deer Lodge.	4,529	1	-	-	-	-	-	-	-	-	-	0.30	2.5	6	7	24	0	s.	H. B. Grant.	
East Anaconda.	do.	5,500	7	47.3	-	52	26	20	1	34	1.48	-	0.60	4.0	14	6	21	4	w.	C. D. Demond.	
Fortine.	Lincoln.	2,975	7	48.6	-	54	31	17	4	47	1.60	-0.50	0.45	2.0	10	11	6	14	n.	Mike Petery.	
Hamilton.	Ravalli.	3,575	10	53.2	+0.1	86	26	26	1	41	1.12	-	0.60	14.1	18	4	14	13	w.	Hamilton Chamber of Com.	
Hat Creek.	Powell.	6,000	3	-	-	-	-	-	-	-	-	-	0.57	0.29	5	13	12	8	sw.	M. K. Landreth.	
Haugan.	Missoula.	3,150	1	49.8	-	87	26	23	6	51	1.43	-	0.57	0.14	11	12	8	sw.	U. S. Forest Service.		
Heron.	Sanders.	2,261	1	52.2	-	83	31	25	2	45	2.55	-	0.44	0	14	11	12	8	w.	E. Knott.	
Kalispell.	Flathead.	2,965	14	50.9	-0.1	81	26	25	1	37	0.92	-1.11	0.28	0	12	10	11	10	w.	U. S. Weather Bureau.	
Libby.	Lincoln.	2,055	3	52.2	-1.3	87	31	19	1	50	0.55	-1.34	0.20	0	4	12 <sup>a</sup>	4 <sup>b</sup>	14 <sup>c</sup>	w.	U. S. Forest Service.	
Missoula.	Missoula.	3,225	33	52.4	-1.2	87	26	26	1	45	1.44	-0.69	0.34	-	13	16	3	12	sw.	U. S. Weather Bureau.	
Ovando.	Powell.	4,207	13	48.2	+0.7	82	26	24	1	45	1.78	-0.64	0.25	0	15	0	31	0	w.	S. B. Muchmore.	
Philipsburg.	Granite.	5,275	9	49.0	-	85 <sup>d</sup>	26	17 <sup>d</sup>	1	49 <sup>d</sup>	1.66	-1.00	0.44	2.0	7	19 <sup>d</sup>	24	6 <sup>d</sup>	sw.	G. T. Bramble.	
Plains.	Sanders.	2,475	14	52.4	+0.4	85	26	23	1	40	1.72	-0.01	0.48	0	11	7	19	5	sw.	James M. Self.	
Pleasant Valley.	Flathead.	3,500	5	47.7	-	79	31	20	1	42	1.53	-	0.60	0.5	14	-	-	-	w.	A. D. Stillman.	
Polson.	do.	2,820	5	51.9	-	80	31	27	1	33	1.47	-	0.55	0	5	-	-	-	w.	F. P. Brown.	
St. Ignatius.	Missoula.	2,700	7	49.6	-	83	26 <sup>e</sup>	24	1	49	2.96	-	0.65	3.0	11	14	9	8	sw.	U. S. Reclamation Service.	
Saltese.	do.	3,600	8	-	-	-	-	-	-	-	2.39	-	0.42	0	13	13	0	18	n.	E. K. Tarbox.	
Stevensville.	Ravalli.	1	49.1	-	-	87	26	24	1 <sup>f</sup>	42	0.96	-	0.33	T.	8	25	3	3	s.	University Orchard Co.	
Thompson Falls.	Sanders.	2,462	1	51.8	-	84	31	25	48	1.52	-	0.41	0	12	12	6	13	w.	U. S. Forest Service.		
Trout Creek.	do.	2,375	1	-	-	-	-	-	-	-	2.86	-	0.90	T.	10	19	0	12	sw.	James Hylent.	
Victor.	Ravalli.	3,414	1	54.8	-	89 <sup>e</sup>	26	30 <sup>e</sup>	17	43 <sup>e</sup>	0.72	-	0.28	0	8	14 <sup>e</sup>	5 <sup>e</sup>	7 <sup>e</sup>	nw.	R. W. Fisher.	
Willow Glen Stock Farm.	Deer Lodge.	5,064	2	49.6	-	84	25	13	1	45	-	-	-	-	15	1	15	ne.	G. E. Luce.		
<i>Wyoming.</i>																					
Afton.	Lincoln.	6,200	9	49.0	-	81	26	20	2	44	2.12	-	0.50	2.5	8	13	5	13	sw.	A. V. Call.	
Alta.	do.	6,500	3	47.3	-	80	26	20	2	41	3.20	-	0.55	3.0	13	8	5	18	sw.	Mrs. Lucy Brown.	
Bechler River.	Yellowstone Park.	6,500	1	-	-	-	-	-	-	-	2.18	-	0.55	3.0	11	8	21	2	sw.	U. S. Army.	
Bedford.	Lincoln.	5,900	13	48.4	+2.3	93	23	20	3	59	1.88	-0.60	0.48	2.0	11	16	8	7	w.	C. G. Heiner.	
Moran.	do.	6,770	1	43.4	-	73	26	15	3	39	3.07	-	1.15	2.5	17	1	14	16	sw.	U. S. Reclamation Service.	
Snake River.	Yellowstone Park.	7,000	7	42.5	-	74	26	12	3	44	3.66	-	0.91	3.0	14	11	11	9	sw.	U. S. Army.	
<i>Nevada.</i>																					
San Jacinto.	Elko.	8	50.2	-	-	85	27	15	1 <sup>f</sup>	60	0.82	-	0.29	0	5	15	10	6	e.	F. W. Marchant.	
<i>Utah.</i>																					
Standrod.	Box Elder.	8	53.2	-	-	80	26	25	1	34	2.04	-	1.33	0	7	19	7	5	sw.	T. B. Jones.	
<i>Idaho.</i>																					
Albion.	Cassia.	4,650	10	-	-	-	-	-	-	-	2.65	-	0.80	0	5	24	1	6	w.	C. E. Bocock.	
Almo.	do.	3	-	-	-	-	-	-	-	-	-	-	0.5	22	5	4	4	sw.	Wm. D. Cahoon.		
American Falls.	Power.	4,341	21	57.6	+4.2	90	26 <sup>f</sup>	30	1 <sup>f</sup>	46	2.15	+0.51	1.40	0	5	18	10	3	w.	Geo. Stoll.	
Arrowrock.	Boise.	3,100	1	60.4	-	95	26	29	2	48	0.10	-	0.10	0	1	18	10	3	w.	U. S. Reclamation Service.	
Blackfoot.	Bingham.	4,503	17	55.0	+1.9	85	26	30	2	47	2.53	+1.00	1.25	0	8	8	20	3	sw.	E. A. Dowd.	
Blackfoot Dam.	Bannock.	6,200	3	49.2	-	78	26	13	3	43	2.50	-	0.65	0	12	9	4	18	w.	S. C. Waddell.	
Bogus Creek.	Boise.	4,200	4	-	-	-	-	-	-	-	1.81	-	0.72	0	7	4	26	1	w.	F. P. Ingraham.	
Boise.	Ada.	2,739	27	59.0	+1.4	94	26	28	2	36	0.58	-0.71	0.34	0	7	7	14	10	nw.	U. S. Weather Bureau.	
Bonners Ferry.	Bonner.	1,850	6	50.4	-	82	31	24	1 <sup>f</sup>	40	2.09	-	0.76	0	6	21	4	6	sw.	Patrick Moriarty.	
Boulder Mine.	Boise.	4,800	3	-	-	-	-	-	-	-	1.79	-	0.72	0	11	15	15	1	w.	S. C. Orr.	
Buhl.	Twin Falls.	3,800	6	57.8	-	89	23	24	1	45	1.58	-	0.67	0	8	15	12	4	w.	Rev. Wm. J. Boone.	
Caldwell.	Canyon.	2,372	8	58.8	-	94	26	27	2	47	1.02	-	0.49	0	3	6	20	5	w.	Caldwell Exp. Station.	
Caldwell Exp. Station.	do.	1	57.4	-	-	95	26	27	2	46	1.04	-	0.40	0	8	8	20	3	sw.	Chas. H. Shepherd.	
Cambridge.	Washington.	2,651	17	57.6	+1.9	95	26	29	1 <sup>f</sup>	50	1.26	-0.34	0.48	0	8	12	11	8	w.	Robert Hoffman.	
Cedar Creek Dam.	Twin Falls.	5,220	2	-	-	-	-	-	-	-	1.26	-	0.54	0	5	12	10	7	w.	Chas. S. West.	
Chesterfield.	Bannock.	5,424	16	52.8	+3.8	82	26	21	3	45	1.05	-0.67	0.60	0	6	6	5	20	6	sw.	Wm. Potter.
Clarks Fork.	Bonner.	2,084	1	52.4	-	79	23	30	2	38	1.39	-	0.38	0	10	10	13	8	w.	J. H. O'Rourke.	
Coeur d'Alene.	Kootenai.	2,157	18	57.4	+2.1	90	21	30	1	43	1.82	-0.02	0.68	0	7	13	10	10	w.	F. L. Featherston.	
Council.	Adams.	3,059	1	56.6	-	91	26	29	1	40	1.80	-	0.72	0	10	10	11	10	w.	Mrs. B. B. Caldwell.	
Culdesac.	Nez Perce.	1,520	4	55.7	-	86	31	30	1	43	2.50	-	0.62	0	14	10	17	4	sw.	W. J. Davis.	
Deary.	Latah.	2,854	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	w.	Emil Schuessler.	
Dent.	Clearwater.	1,350	7	-	-	-	-	-	-	-	1.26	-	1.00	0.2	8	2	4	25	sw.	Walter H. Durant.	
Driggs.	Fremont.	6,097	6	47.4	-	77	28	22	2 <sup>f</sup>	40	2.53	-	1.00	0.2	8	6	19	6	nw.	U. S. Forest Service.	
Emmett.	Canyon.	2,350	6	60.7	-	98	26	31	2	42	0.74	-	0.60	0	4	6	19	6	nw.	M. B. Merritt.	
Forney.	Lemhi.	6,000	12	-	-	-	-	-	-	-	-	-	0	7	23	6	2	e.	Asa A. Kenison.		
Garnet.	Elmore.	2,575	13	63.0	+1.1	9															

TABLE 1.—Climatological data for May, 1913. District No. 12—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.					Precipitation, in inches.					Sky.	Prevailing wind direction.	Observers.				
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
<i>Idaho—Continued.</i>																				
Little Camas	Elmore.	5,000	3	46.0		82	26	15	1	50	0.59		0.12	T.	10	4	13	14	w.	
Loon Creek	Custer.	6,000	5	46.0		75	25†	24	2	59	1.46		0.50	T.	17	6	10	15	sw.	
Mackay	do.	5,897	5	51.0		97	26	28	1	45	2.23		0.50	0	9	14	13	4	nw.	
Meridian	Ada.	2,657	2	59.2		91†	26	30†	1	45d	0.65		0.55	0	4	8	19	4	nw.	
Mesa	Adams.	3,275	2	57.0		56.7*	26	34*	1	40*	1.32		0.54	0	5	—	—	n.	I. S. Carter.	
Middle Fork	Idaho.	1,397	9	57.0	+ 2.7	85	27	31	2	41	1.29	+ 0.05	0.80	0	7	11	17	3	w.	
Milner	Twin Falls.	4,110	49.8*	57.0	+ 0.2	77b	30	27b	3†	38b	2.24	+ 0.71	1.35	0	10	2	12	8	se.	
Moore	Blaine.	5,700	12	56.9	+ 0.7	82	27	29	2	34	2.70	+ 0.18	0.83	0	0	14	12	5	nw.	
Moscow	Latah.	2,748	20	52.0	+ 0.7	95	27	25	3	58	T.		0	0	1	—	—	University of Idaho.		
Mountainhome	Elmore.	3,150	7	54.7		87	24	27	1	47	1.00		1.00	0	1	—	—	Mrs. Ellen Marion.		
Murtaugh	Twin Falls.	3,950	8	50.2		85	26	24	1	46	1.44		0.57	0	11	9	17	5	w.	
New Meadows	Adams.	3,082	3	51.4		88	26	28	1	43	2.28		0.80	0	6	5	21	5	—	
Oakley	Cassia.	4,700	19	56.2	+ 2.6	86	26†	25	2	47	1.36	+ 0.18	0.65	0	6	5	21	5	—	
O'Hara Bar	Idaho.	1,557	2	56.4		89	26	32	1	50	2.17		0.38	0	15	4	23	4	—	
Orofino	Clearwater.	1,027	8	51.0	+ 1.6	78	30	26	1†	43				0	20	5	0	sw.	Geo. Alteneder.	
Paris	Bear Lake.	5,946	18	51.0	+ 1.6	78	30	26	1†	43				0	5	15	5	11	John Norton.	
Payette	Canyon.	2,159	21	58.9	+ 0.3	92	26	29	14	51	0.54	- 0.63	0.27	0	3	11	5	15	n.	
Pierson	Custer.	7,000	4	45.0		76	26	11	1	46	0.75		0.31	1.0	0	15	5	15	s.	
Pleasant Valley	Ada.	3,000	5	57.1		95	26	23	14	47	0.44		0.23	0	5	19	6	6	nw.	
Pocatello	Bannock.	4,483	13	56.6	+ 1.1	85	26	32	2	36	2.44	+ 0.24	1.68	T.	9	4	18	9	sw.	
Pocatello Nursery	do.	5,396	6	52.9		81	26	21	2	40	2.59		0.58	0	7	5	22	4	sw.	
Poplar	Bonneville.	5,500	3	52.9		81	26	21	2	40	2.59		0.58	0	7	17	4	10	C. M. Lawrence.	
Porthill	Bonner.	1,665	23	58.0	- 0.8	78	24	24	1	41	1.95	- 0.05	0.61	0	7	17	4	10	H. A. French.	
Priest River Experiment Station:																				
No. 1.	do.	2,500	1	51.2		81	8	25	1	36	2.23		0.75	0	16	19	4	8	U. S. Forest Service.	
No. 2.	do.	2,500	1	51.8		84	31	25	1	41	2.11		0.76	0	14	19	4	8	Do.	
No. 3.	do.	1	49.4			83	31	22	4	48	2.24		0.80	0	13	19	4	8	Do.	
Pyle Creek	Boise.	3,100	3	58.9		87	26	19	1†	48	1.48		0.81	0	12	19	7	5	P. V. Smith.	
Richfield	Lincoln.	4,306	3	54.8		85*	26	16*	2	50*	1.25		0.25	0	2	13	16	2	Idaho Irrigation Co.	
Rogerson	Twin Falls.	3	53.4*			85*	26	21	1	40*	0.40		0	8	—	—	—	J. S. Bussell.		
Roseberry	Boise.	4,872	3	58.0		91	26	21	1	40	1.64		0.56	0	12	6	19	6	Rev. T. P. Graham.	
Roseworth	Twin Falls.	4,650	2	52.0		85	26	28	1	46	1.26		0.89	0	8	27	2	2	D. B. Hartwell.	
Rupert	Minidoka.	4,204	6	56.1		85	26	28	1	46	1.26		0.89	0	8	27	2	2	Will Farry.	
St. Anthony	Fremont.	4,968	1	57.4*		91	26	21	1	40	0.34		0.56	0	12	6	19	6	Heber C. Sharp.	
St. Maries	Kootenai.	2,263	15	50.0		79	26	28	1	26	2.11		0.28	0.9	13	6	10	15	J. S. Turnbull.	
St. Michael's Priory	Idaho.	3,811	—	60.0		91	26	16	1	52	0.89		0.29	0	12	17	10	4	Rev. Father Berthold.	
Salmon	Lemhi.	4,040	7	56.0		91	26	16	1	52	0.89		0.29	0	12	17	10	4	E. K. Abbott.	
Sandpoint	Bonner.	2,086	2	52.2		84	31	24	1	41	3.02		0.70	0	10	14	10	7	S. M. Moore.	
Sheephill	Boise.	5,000	3	53.0		83	26	24	3	43	2.91		0.52	0	9	—	—	C. M. Gardner.		
Shoshone	Lincoln.	3,968	5	57.4*		89	31	25	2	53	T.		0	0	—	—	—	Zell Truman.		
Silver City	Owyhee.	6,220	5	50.1		81	26	25	1†	38	1.92		0.56	0	12	6	19	6	Russell Stoddard.	
Soldier Creek	Blaine.	5,755	2	50.1		81	26	25	1†	38	1.92		0.36	T.	7	13	6	12	J. E. Minear.	
Spirit Lake	Kootenai.	2,560	2	55.6		89	26	25	2	48	1.89		1.07	0	8	11	15	5	M. C. Krause.	
Springfield	Bingham.	4,420	4	55.6		91	26	30	14	37	0.81		0.55	0	4	14	13	4	Mrs. W. A. Edwards.	
Spring Hill	Ada.	3,607	—	58.4		81	26	27	3	43	1.91		1.05	0	8	16	4	Ray G. Lyons.		
Sugar	Fremont.	4,892	5	53.0		83	26	24	3	43	2.91		0	0	—	—	—	Utah-Idaho Sugar Co.		
Sunnyside	Elmore.	3,500	3	63.0		89	31	25	2	53	T.		0	0	—	—	—	Col. M. W. Wood.		
Tripod Mountain	Boise.	4,300	3	50.0		85	31	36	4	34*	1.94		1.10		0	3	20	6	Mrs. Verna Paddock.	
Twin Falls	Twin Falls.	3,825	7	58.0		88	26	30	1	42	0.75		0.20	0	9	7	21	3	J. A. Waters.	
Vernon	Fremont.	5,050	14	52.2	+ 3.2	82	26	20	3	42	2.39	+ 0.46	0.87	0	9	14	11	6	A. M. Slater.	
Wallace	Shoshone.	2,728	5	51.8		85	26	26	1	42	2.91		0.66	—	13	—	—	U. S. Weather Bureau.		
Weiser	Washington.	2,114	1	61.0		98	26	28	1	54	1.37		0.37	0	13	3	16	12	J. W. Lapish.	
Wendell	Gooding.	3,400	4	58.9		89	26	21	1	43	0.46		0.12	0	5	20	10	1	Chas. L. Dingler.	
Weston	Franklin.	4,400	14	55.4	+ 3.0	87	26	21	3	46	1.16	- 1.05	0.56	T.	6	16	3	12	Wm. T. Chatterton.	
<i>Washington.</i>																				
Aberdeen	Chehalis.	162	22	53.4	- 0.8	82	6	34	5	42	3.69	- 0.77	0.98	0	16	14	6	11	nw.	
Anacortes	Skagit.	60	19	53.8		71	19	37	5	26	1.93	- 0.04	0.50	0	13	8	18	5	H. A. Benham.	
Anatone	Asofim.	2,800	48.2	53.0		77	31	27	2	39	2.89		0.80	T.	11	11	9	9	Douglas Allmond.	
Baker	Skagit.	390	7	53.3		81	31	34	1	35	2.80		0.40	0	12	10	5	18	W. A. Hamilton.	
Bellingham	Whatcom.	60	18	54.2*	+ 0.5	78	31	36	4	34*	1.94	- 0.34	0.42	0	8	17	6	8	Robt. M. White.	
Bellingham (near)	do.	107	—	52.2	- 0.1	71	31	32	6	32	3.12	+ 0.33	0.67	0	13	12	7	7	Sanford B. Mayhew.	
Blaine	do.	57	16	52.2	- 0.1	71	31	32	6	32	3.12	+ 0.33	0.67	0	13	12	7	7	U. S. Bureau Plant Industry.	
Blewett	Chelan.	2,200	4	52.0		76	31	32	4	35	2.71		1.28	- 0.70	0.40	0	6	12	7	John W. Sheets.
Bremerton	Kitsap.	40	15	56.5		85	31	32	4	35	2.71		1.08	0	8	12	15	4	John Burmeister.	
Brewster	Okanogan.	1,620	3	56.5		77	31	34	5	40	2.89		0.53	0	11	5	10	16	U. S. Navy Yard.	
Buckley	Pierce.	635	—	52.6		87	31	28	6	47	1.18	+ 0.13	0.32	0	8	17	12	2	Mrs. H. F. Bertram.	
Bumping Lake	Yakima.	3,400	2	45.0		85	31	27	1†	51	1.53		0.33	0	8	10	4	17	Geo. Sears.	
Cedar River	King.	535	6	50.0		85	31	27	1†	51	3.29		0.84	0	15	9	3	17	U. S. Reclamation Service.	
Centralia	Lewis.	212	20	54.6	- 0.1	80	6†	33	5	44	1.49	- 1.12	0.37	0	12	10	20	1	Geo. Landsburg.	
Clearbrook	Whatcom.	140	10</																	

TABLE 1.—Climatological data for May, 1913. District No. 12—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.				Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.		
<i>Washington—Contd.</i>																				
Gerome.	Stevens.	1,200	1	55.8	.....	89	31	26	1	44	1.38	.....	0.48	0	10	6	23	2	.....	
Goat Lake.	Snohomish.	2,900	4	.....	.....	3.89	.....	.....	.....	0.57	0	15	.....	.....	.....	.....	.....	.....	J. H. C. Scurlock.	
Gold Basin.	do.	1,360	2	49.7	.....	79	31	32	6	42	5.08	0.74	0.60	0	16	18	0	13	n.w.	
Gold Creek.	Yakima.	2,600	4	.....	.....	.....	.....	.....	.....	.....	1.40	0.60	0	4	9	12	10	w.	U. S. Forest Service.	
Gold Hill.	do.	4,454	.....	.....	.....	90	31	29	2	44	1.21	+ 0.13	0.70	0	4	7	21	3	w.	U. S. Reclamation Service.
Goldendale.	Klickitat.	1,600	7	55.4	.....	.....	.....	.....	.....	.....	3.34	- 1.30	0.68	0	15	9	15	15	n.w.	Klickitat Co. Abstract Co.
Granite Falls.	Snohomish.	397	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. H. Cleaver.	
Grays River.	Wahkiakum.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. B. Martin.	
Guler.	Klickitat.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Frank Kuehnel.	
Hanford.	Benton.	385	8	61.4	.....	98	31	30	2	51	0.61	.....	0.19	0	6	6	21	4	n.w.	Frances Lee Bash.
Hutton.	Adams.	1,100	8	57.2	.....	92	31	25	1	48	0.91	.....	0.42	0	6	12	3	16	s.w.	Dr. A. V. Marion.
Huntsville.	Columbia.	1,400	5	.....	.....	.....	.....	.....	.....	.....	0.95	.....	0.60	0	4	.....	.....	.....	Mrs. S. J. Hill.	
Irene Mountain.	Okanogan.	2,700	4	.....	.....	.....	.....	.....	.....	.....	2.50	.....	0.75	0	10	9	8	14	.....	Mrs. Theo. Wheeler.
Kennewick.	Benton.	368	18	61.6	- 0.9	95	31	38	5†	47	0.38	- 0.13	0.11	0	5	.....	.....	.....	R. E. Reed.	
Kent.	King.	53	.....	54.1	.....	75	31	31	1	40	2.29	.....	0.74	0	9	11	6	14	n.	A. O. Jeffries.
Kettle Falls.	Klickitat.	1,265	4	55.6	.....	87	31	27	1	43	2.10	.....	0.53	0	8	.....	.....	.....	H. H. Cole.	
Kloma.	Benton.	430	7	59.2	.....	90	21	34	2	45	0.52	.....	0.18	0	5	17	9	5	sw.	Dr. F. S. Hedger.
Kosmos.	Lewis.	775	7	53.4	.....	81	31	32	6	49	2.88	.....	0.43	0	15	12	19	0	ne.	J. A. Ush.
La Center.	Clarke.	250	16	52.7	- 1.7	81	31	32	1†	39	2.29	- 1.01	0.47	0	10	14	12	5	sw.	Joseph Brothers.
La Crosse.	Whitman.	1,400	4	55.8	.....	86	31	30	2	48	0.79	.....	0.23	0	5	12	12	7	sw.	M. E. Schrech.
Lake Clealum.	Kittitas.	2,171	4	49.9	.....	86	31	31	6	47	1.45	.....	0.35	0	14	4	11	16	n.w.	U. S. Reclamation Service.
Lake Kachess.	do.	2,235	5	48.6	.....	83	31	30	6	44	1.48	.....	0.25	0	13	12	1	18	w.	Do.
Lake Keechelus.	do.	2,479	5	.....	.....	.....	.....	.....	.....	.....	2.72	.....	0.44	0	14	12	11	8	w.	Do.
Lakeside.	Chelan.	1,116	22	58.4	- 0.1	88	31	36	4	35	1.87	+ 0.82	0.74	0	7	9	18	4	w.	W. H. Van Meter.
Laurel.	Klickitat.	1,900	4	.....	.....	.....	.....	.....	.....	.....	1.51	.....	0.40	0	5	16	11	4	w.	Mrs. Minnie E. Strout.
Laurier.	Ferry.	1,644	3	54.2	.....	85	31	24	1	45	2.66	.....	0.60	0	16	6	5	20	s.	Mrs. J. S. Myers.
Lone Tree.	Chehalis.	9	4	52.8	.....	68	6	42	5	19	3.26	.....	0.60	0	14	4	21	6	n.w.	U. S. Engineer Corps.
Longmires Springs.	Pierce.	2,800	2	.....	.....	.....	.....	.....	.....	.....	0.29	.....	0.09	0	8	10	8	13	.....	National Park Ranger.
Lost Creek.	Okanogan.	3,125	2	55.4	.....	93	31	29	2	41	0.73	.....	0.25	0	6	18	5	5	w.	P. H. Leese.
McCombie.	Grant.	1,072	2	58.4	.....	.....	.....	.....	.....	.....	1.50	.....	0.60	0	7	9	19	3	sw.	L. F. McCombie.
McCumbers Ranch.	Yakima.	2,182	3	.....	.....	50.4	80	31	23	1	41	.....	.....	.....	.....	.....	.....	.....	Knute Milton.	
Milton Ranch.	Ferry.	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.88	.....	0.30	0	4	28	0	3	.....	H. M. Flemming.
Moses Lake.	Grant.	1,070	2	.....	.....	89	26†	36	1	37	0.78	- 0.18	0.20	0	7	23	4	4	sw.	G. H. Mottinger.
Mottinger.	Benton.	307	13	60.8	- 2.0	.....	.....	.....	.....	.....	0.67	.....	0.29	0	6	14	8	1	n.w.	W. M. Dorr.
Mount Pleasant.	Clallam.	500	2	49.0	.....	72	31	33	4	29	1.45	.....	0.48	0	7	13	9	9	sw.	H. B. Souder.
Moxee.	Yakima.	1,000	21	58.0	- 0.1	91	31	26	1	46	1.15	+ 0.40	0.45	0	9	12	14	5	sw.	Chas. M. Talmadge.
Newport.	Stevens.	2,400	3	51.2	.....	83	31	22	1	46	1.52	.....	0.60	0	12	5	19	7	sw.	Steve Nagy.
Nighthawk.	Okanogan.	3,050	4	.....	.....	60	6	42	1	11	2.85	+ 0.46	1.09	0	12	5	12	14	n.w.	U. S. Weather Bureau.
North Head.	Pacific.	211	11	51.0	- 0.2	.....	.....	.....	5†	42	1.20	.....	0.74	0	8	.....	.....	.....	Ruth J. Shepard.	
North Sundale.	Klickitat.	4	62.9*	.....	.....	90†	31	38	1	40	1.66	.....	1.20	0	8	.....	.....	.....	W. F. Case.	
Northport.	Stevens.	1,350	14	56.2	+ 1.8	88	31	29	1	42	1.79	- 0.15	0.57	0	13	16	14	1	n.w.	Albert Bender.
North Yakima.	Yakima.	1,070	4	58.9	.....	86	31	32	2	39	0.67	.....	0.29	0	6	14	8	1	sw.	H. W. Rieke.
Odessa.	Lincoln.	1,540	10	55.5	.....	88	31	26	1	43	1.26	.....	0.33	0	6	11	19	1	sw.	Cecil S. Willis.
Olga.	San Juan.	50	23	52.6	- 0.2	68	31	40	4†	20	1.75	- 0.31	0.60	0	9	9	9	13	sw.	M. O'Connor.
Olympia.	Thurston.	45	35	54.0	- 0.6	80	31	31	5†	48	2.89	+ 0.26	0.83	0	12	12	6	13	w.	Saint John Umbrite.
Omak.	Okanogan.	850	4	57.8	.....	92	31	24	1	48	2.12	.....	0.53	0	6	18	3	10	sw.	M. C. Jackman.
Oroville.	do.	922	3	57.2	.....	86	31	30	1	41	2.65	.....	1.40	0	7	15	8	8	s.	Samuel Gruel, sr.
Peola.	Garfield.	5,000	4	.....	.....	.....	.....	.....	.....	.....	2.29	.....	0.58	0	17	12	12	7	n.w.	Peter McClung.
Pomeroy.	do.	1,500	21	56.0	- 0.7	85	8	32	5	42	2.16	+ 0.36	0.75	0	9	6	20	5	w.	U. S. Weather Bureau.
Port Crescent.	Clallam.	259	18	48.2	- 0.9	60	31	30	5	27	1.32	- 0.99	0.47	0	9	4	13	14	n.w.	Frank Plummer.
Port Townsend.	Jefferson.	80	23	53.2	- 0.2	70	31	40	7	21	2.13	+ 0.25	0.52	0	10	12	6	13	n.w.	E. L. Capps.
Prosser.	Benton.	661	.....	59.4	.....	93	31	29	1	44	0.95	.....	0.28	0	15	15	1	1	sw.	State Agricultural College.
Pullman.	Whitman.	2,550	21	52.3	- 0.6	82	31	31	1†	31	1.60	- 0.24	0.55	0	10	10	13	8	sw.	C. A. Bullard.
Quets River.	Jefferson.	16	2	51.4	.....	69	6†	35	5	30	4.70	.....	1.02	0	17	16	15	16	w.	A. V. Higley.
Quinault.	Chehalis.	300	6	52.7	.....	85	6†	32	5	45	0.83	.....	1.50	0	14	11	15	5	sw.	Chas. Shoemaker.
Reardan.	Lincoln.	54.2	.....	54.2	+ 0.6	80	25	28	1	33	0.80	- 0.90	0.35	0	8	10	5	16	n.w.	Geo. B. Stocking.
Republic.	Ferry.	2,628	13	50.8	- 0.9	84	31	21	1	46	1.99	- 0.18	0.60	0	12	11	2	18	s.	James W. Nicol.
Rex Creek.	Chelan.	1,135	6	55.3	.....	83	31	38	2	34†	0.63	.....	0.29	0	5	10†	7†	8†	n.w.	Agent, N. P. R. R.
Ritzville.	Adams.	1,825	14	.....	.....	.....	.....	.....	.....	.....	0.46	.....	0.19	0	5	.....	.....	.....	R. R. Couger.	
Robertsville.	Klickitat.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Hans Mumm.	
Rossalia.	do.	2,425	21	53.7	+ 0.9	84	31	29	1†	34	1.68	- 0.40	0.40	0	12	10	16	5	sw.	Mrs. Adelle Russell.
Russells Ranch.	Yakima.	2,870	4	.....	.....	.....	.....	.....	.....	.....	1.06	.....	0.32	0	10	16	11	4	w.	U. S. Weather Bureau.
Seattle.	King.	208	22	54.1	- 0.9	71	31	42	1	25	1.37	- 0.95	0.65	0	12	5	9	17	s.	Mrs. H. L. Devin.
Sedro Woolley.	Skagit.	38	16	53.2	- 1.7	77	31	33	5	36	2.01	- 1.34	0.46	0	14	10	10	11	sw.	C. E. Comstock.
Sixprong.	Klickitat.	1,240	6	.....	.....	.....	.....	.....	.....	.....	1.27	.....	0.39	0	9	.....	.....	.....	Skagit Power Co.	
Skagit Power Dam.	Whatcom.	510	3	54.0	.....	83	31	33	1	42	2.62	.....	0.40	0	14	15	3	13	sw.	James Byling.
Snohomish.	Snohomish.	55	19	54.2	- 0.5	76	21†	37	4	39	3.22	- 0.04	0.70	0	11	21	1</td			

TABLE 1.—Climatological data for May, 1913. District No. 12—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.			Prevailing wind direction.	Observers.				
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmeasured.	Number of rainy days.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.				
<b>Washington—Contd.</b>																						
Winthrop.....	Okanogan.....	1,765	2	54.2	.....	89	31	29	4	45	1.14	.....	0.60	0	8	19	5	7	w.	Methow Trading Co.		
Yacolt.....	Clark.....	850	.....	54.6	.....	90	31	33	41	40	3.06	.....	0.96	0	8	18	4	9	sw.	C. R. Miller.		
Yale.....	Cowlitz.....	375	6	54.6	.....	90	31	33	41	40	2.99	.....	0.80	0	12	10	6	15	sw.	J. A. Williams.		
Zillah.....	Yakima.....	800	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. G. Ware.			
<b>Oregon.</b>																						
Agency Plains.....	Crook.....	2,362	.....	49.8	.....	82	31	21	1	37	1.45	.....	0.48	0	7	18	4	9	nw.	W. S. Williams.		
Albany.....	Linn.....	212	31	56.0	-1.3	86	31	30	1	36	0.12	-0.28	0.42	0	9	10	9	12	n.	F. M. French.		
Alpine.....	Benton.....	350	16	55.4	+ 1.2	84	31	35	8†	40	1.58	-0.37	0.45	0	7	16	11	4	e.	J. D. McPherson, jr.		
Ashland.....	Jackson.....	1,963	29	56.6	-0.3	88	31	31	2	38	1.94	+ 0.27	0.83	0	8	9	16	6	nw.	G. G. Eubanks.		
Astoria.....	Clatsop.....	16	52	53.2	-1.0	71	31	41	1	24	3.17	-0.71	0.57	0	15	12	5	14	nw.	Irving Club.		
Austin.....	Grant.....	4,250	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. S. Forest Service.			
Baker.....	Baker.....	3,466	23	52.3	+ 1.6	84	26	27	1	38	1.10	-0.63	0.22	0	13	7	15	9	nw.	U. S. Weather Bureau.		
Bend.....	Crook.....	3,629	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Bend Bulletin.			
Black Butte.....	Lane.....	1,200	12	51.2	.....	80	25	32	1	41	3.05	.....	0.85	0	10	19	5	7	nw.	William Harris.		
Blalock.....	Gilliam.....	237	52	62.24	-0.5	91d	26	38d	2	40d	1.18d	+ 0.67	0.36d	0	6d	9d	12d	6d	w.	Geo. W. Long.		
Brogan.....	Malheur.....	2,600	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. M. Addington.			
Burns.....	Harney.....	4,157	22	54.4	+ 5.6	89	26	26	10	47	0.25	-0.54	0.12	0	3	14	10	7	w.	J. C. Welcome, jr.		
Cascade Locks.....	Hood River.....	100	23	55.9	-0.9	81	31	30	20	39	3.30	-0.24	0.63	0	12	15	7	9	w.	Val. W. Tomkins.		
Cazadero.....	Clackamas.....	503	4	55.8	.....	84	31	36	5	38	3.10	.....	0.42	0	15	10	7	14	nw.	Alf Drill.		
Central Point.....	Jackson.....	57.2	.....	.....	.....	87	6†	27	2	50	1.39	.....	0.53	0	8	14	9	4	nw.	A. C. Fiero.		
Clear Lake.....	Linn.....	3,030	46.5	81	31	28	5	47	4.23	.....	0.95	0.2	1.16	15	2	14	1	s.	R. B. Grondahl.			
Cliff.....	Lake.....	4,300	6	48.9	85	26	10	1	53	0.85	.....	0.58	0	3	6	17	8	nw.	John C. Green.			
Condon.....	Gilliam.....	2,884	6	51.8	0.4	80	31	26	1	41	1.71	.....	0.64	0	8	19	9	3	nw.	C. F. Kennedy.		
Corvallis.....	Benton.....	266	25	54.5	-0.5	87	31	34	1	43	1.89	-0.36	0.38	0	8	13	9	4	w.	Oregon Agricultural College.		
Crescent.....	Klamath.....	4,400	1	46.6	.....	85	31	14	1	55	1.23	.....	0.35	T.	8	15	12	3	nw.	C. W. Long.		
Dayville.....	Grant.....	2,200	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Campbell-Martin.			
Deadwood.....	Lane.....	350	3	54.6	88	31	36	1	42	2.66	.....	0.80	0	11	4	21	6	sw.	Jos. Simmonds.			
Doraville.....	Columbia.....	600	11	52.0	-0.4	77	6†	34	1	35	2.19	-0.87	0.43	0	15	11	8	12	nw.	Jos. Hackenberg.		
Drain.....	Douglas.....	300	11	56.0	+ 0.4	86	31	34	2	46	1.73	-0.67	0.43	0	11	11	10	10	nw.	Ira Wimberly.		
Ella.....	Umatilla.....	625	9	60.5	.....	90	26†	36	2†	39	0.55	.....	0.18	0	4	17	5	9	w.	R. B. Stanfield.		
Eugene.....	Lane.....	449	23	56.4	+ 1.7	84	31	30	13	40	2.80	+ 0.35	0.63	0	9	12	5	14	w.	Carl F. Troedson.		
Fairview.....	Coos.....	142	17	.....	.....	91	26	17	14	52	0.72	.....	0.25	0	11	12	10	7	nw.	Paul G. Bond.		
Follyfarm.....	Malheur.....	53.4	.....	.....	.....	84	31	30	13	40	2.80	+ 0.35	0.63	0	9	12	5	14	w.	William Bettys.		
Forest Grove.....	Washington.....	220	24	57.8	+ 2.3	88	31	36	13	28	1.62	-0.41	0.60	0	11	10	7	14	n.	W. R. Gardner.		
Gardiner.....	Douglas.....	72	24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. J. Stauffer.			
Glassbuttes.....	Crook.....	4,200	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	sw.			
Glendale.....	Douglas.....	144	9	51.6	-0.5	88	31	31	4	48	3.53	-2.85	0.85	0	12	13	5	13	s.	Mrs. J. A. Reher.		
Glenora.....	Tillamook.....	575	22	51.6	.....	84	31	31	27	2	50	1.83	-0.02	0.46	0	7	15	6	10	nw.	John W. Riley.	
Gold Beach.....	Curry.....	40	12	.....	.....	84	31	26	1	41	2.72	.....	0.70	0	8	12	10	9	nw.	John B. Paddock.		
Grants Pass.....	Sophia.....	956	25	57.3	+ 0.6	93	31	27	2	50	1.83	-0.66	0.73	0	11	14	13	4	nw.	Agent O.-W. R. & N. Co.		
Grass Valley.....	Sherman.....	2,381	12	53.7	.....	84	31	26	1	41	2.72	.....	0.70	0	8	12	10	9	nw.	Miss Belle Ely.		
Gurdane.....	Umatilla.....	3,500	4	51.4	.....	80	23	30	3	36	0.26	.....	0.07	0	11	14	13	4	nw.	Portland Waterworks.		
Headworks.....	Clackamas.....	719	11	.....	.....	83	31	33	1	37	1.39	.....	0.95	0	14	15	16	0	nw.	Frank Gilliam.		
Heppner.....	Morrow.....	1,950	23	55.0	+ 0.1	83	31	33	2	46	0.59	.....	0.20	0	11	8	22	1	w.	C. W. Kellogg.		
Hermiston.....	Umatilla.....	451	6	59.6	.....	92	31	33	2	46	0.59	.....	0.20	0	4	21	7	3	nw.	R. H. Parsons.		
Hillcrest Orchard.....	Jackson.....	1,585	.....	.....	.....	83	31	30	1	44	0.10	.....	0.65	0	4	13	18	0	w.	A. C. Allen.		
Hollywood Orchard.....	Hood River.....	1,400	.....	.....	.....	56.2	+ 0.8	92	31	35	5	43	0.05	-0.15	0.40	0	4	19	6	w.	Edward W. Birge.	
Hood River.....	No. 2.....	300	23	56.2	+ 0.8	92	31	35	5	43	0.05	-0.15	0.29	0	8	19	3	9	w.	W. H. Lawrence.		
No. 3.....	No. 3.....	485	1	57.8	.....	91	31	39	5	41	1.23	.....	0.27	0	7	11	19	1	nw.	U. A. Newman.		
No. 4.....	No. 4.....	620	1	55.5	.....	90	31	31	5	49	1.18	.....	0.34	0	7	23	6	2	w.	P. L. Smith.		
No. 5.....	No. 5.....	850	1	54.3	.....	88	31	32	5	43	1.47	.....	0.34	0	7	23	6	2	w.	J. G. Jarvis.		
Huntington.....	Baker.....	2,163	12	61.4	+ 1.9	90	31	35	1	44	0.10	-0.65	0.04	0	4	13	18	0	w.	Agent O.-W. R. & N. Co.		
Jacksonville.....	Jackson.....	1,640	57.3	80.9	31	29	2	40	1.70	.....	0.09	0.62	0	7	17	5	9	s.	E. Britt.			
Joseph.....	Wallowa.....	4,400	24	50.6	+ 2.0	79	23	27	1	34	2.74	+ 0.74	0.50	0	12	14	0	17	s.	F. F. McCully.		
Klamath Agency.....	Klamath.....	4,169	5	.....	.....	53.4	+ 0.6	83	31	26	1†	31	0.71	-0.33	0.28	0	4	18	8	5	nw.	N. D. Ginsbach.
Klamath Falls.....	Union.....	4,100	24	53.4	.....	83	31	26	1†	31	0.71	-0.33	0.28	0	4	18	8	5	nw.	Augusta J. Hayden.		
LeGrande.....	Crook.....	2,784	25	51.6	.....	84	31	21	1	44	1.24	.....	0.44	0	8	14	8	9	nw.	W. A. Worstell.		
Laidlaw.....	Lake.....	3,171	9	51.6	-0.1	81	26	21	1	39	0.79	-0.73	0.35	0	7	11	7	13	s.	J. W. Brown.		
Lakeview.....	Lake.....	4,825	30	50.6	-0.1	81	31	39	1	49	1.34	.....	0.28	0	10	20	6	5	s.	C. C. Gott.		
La Pine.....	Crook.....	4,230	48.4	85.7	.....	85	26	15	1	49	1.34	.....	0.73	0	13	12	1	18	nw.	Albert Larson.		
McKenzie Bridge.....	Lane.....	1,400	12	55.1	+ 1.1	93	31	30	5	55	3.63	-0.66	0.73	0	8	14	5	12	nw.	George Frissell.		
McMinnville.....	Yamhill.....	182	26	55.7	+ 0.5	87	31	35	1†	40	1.34	-0.71	0.50	0	8	14	5	12	nw.	M. E. Pettit.		
Marshfield.....	Coos.....	34	12	52.6	-0.8	74	25	32	2	34	2.35	.....	0.95	0	12	20	2	9	nw.	U. S. Weather Bureau.		
Meadow Brook Ranch.....	Hood River.....	850	1	55.8	.....	88	31	36	5†	39	1.75	.....	0.44	0	12	13	6	nw.	John W. Palmer.			
Medford.....	Jackson.....	1,425	3	58.0	.....	92	31	28	2	46	1.72	.....	0.59	0	9	18	9	4	nw.	U. S. Weather Bureau.		
Merrill.....	Klamath.....	4,070	8	53.2	.....	83	23†	20	2	44	1.35	.....	0.50	0	5	23	2	6	nw.	U. S. Reclamation Service.		
Metolius.....	Crook.....	2,525	3																			

TABLE 1.—Climatological data for May, 1913. District No. 12—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
<i>Oregon—Continued.</i>																				
Rio Hermoso.....	Crook.....	2,110	2	54.5	.....	87	22	25	1	43	1.72	.....	0.52	0	6	16	11	4	nw.	C. T. Hubbard.
Riverside.....	Malheur.....	3,000	14	52.0	.....	80	31	12	1	55	1.72	.....	0.60	0	5	25	4	2	nw.	Mrs. Leah Fairman.
Robbville.....	Crook.....	4,000	.....	52.0	.....	88	31	33	2	42	1.50	— 0.55	0.50	0	8	10	16	5	n.	Loren B. Robb.
Roseburg.....	Douglas.....	510	35	57.4	+ 1.4	88	31	41	5	33	2.24	— 0.29	0.56	0	11	16	1	14	n.	U. S. Weather Bureau.
Salem.....	Marion.....	120	23	56.6	+ 0.5	85	31	41	5	33	2.45	— 0.45	0.10	0	7	94	54	13d	n.	M. P. Baldwin.
Seneca.....	Grant.....	4,800	2	48.6	.....	81	26	20	1	48	0.45	.....	0.45	0	5	12	17	2	nw.	E. J. Southworth.
Silver Lake.....	Lake.....	4,700	16	51.4	+ 2.6	85	26	15	3	50	0.96	— 0.27	0.45	0	6	9	13	9	e.	G. W. Marvin.
Siskiyou.....	Jackson.....	4,115	5	53.8	.....	81	26	26	1	37	1.47	.....	0.52	2.5	6	8	13	4	w.	U. S. Weather Bureau.
Sparta.....	Baker.....	4,150	22	53.0	+ 2.2	82	26	24	1	43	1.23	— 0.67	0.60	0	8	13	14	4	w.	J. A. Wright.
Stafford.....	Clackamas.....	400	17	56.0	+ 1.4	90	29	36	1	48	2.40	— 0.48	0.59	0	14	.....	.....	.....	sw.	John P. Gage.
Table Rock.....	Jackson.....	1,215	.....	58.1	.....	95	31	25	2	53	1.35	.....	0.60	0	7	14	11	6	nw.	Mrs. J. C. Pendleton.
Talent.....	do.....	1,800	.....	57.6	.....	91	31	29	2	44	1.92	.....	0.68	0	8	18	4	9	nw.	T. F. Smith.
The Dalles.....	Wasco.....	112	39	61.0	+ 1.1	90	31	38	1	39	0.96	+ 0.39	0.36	0	11	16	4	11	w.	Judd S. Fish.
Tillamook.....	Tillamook.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Will Spaulding.
Toledo.....	Lincoln.....	75	23	50.8	— 2.6	78	31	33	1	32	2.55	— 1.63	0.80	0	9	18	13	0	nw.	C. B. Crosono.
Umatilla.....	Umatilla.....	340	25	61.7	+ 0.8	97	31	36	2	50	0.80	+ 0.10	0.26	0	6	10	1	20	e.	Mrs. H. T. Duncan.
Union.....	Union.....	2,787	2	53.6	.....	87	26	29	2	44	1.92	.....	0.44	0	11	17	5	9	nw.	Robt. Withycombe.
Vale.....	Malheur.....	2,242	21	60.0	+ 4.2	95	25	32	2	48	0.76	— 0.37	0.41	0	9	21	10	0	ne.	H. P. Osborne.
Van.....	Harney.....	3,506	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	George Howe.	
Vida.....	Lane.....	1,100	2	54.4	.....	88	6	34	1	42	3.55	.....	0.80	0	13	13	4	14	w.	W. H. Pendell.
Waldo.....	Josephine.....	1,900	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. M. Lewis.	
Wallace Orchard.....	Polk.....	170	4	54.8	.....	84	31	35	1	40	2.37	.....	0.66	0	12	6	15	10	.....	Charles A. Park.
Wallowa.....	Wallowa.....	2,935	10	51.6	+ 1.2	83	31	26	1	43	2.47	+ 0.69	0.54	0	14	5	11	15	nw.	L. J. Coverstone.
Wamic.....	Wasco.....	1,500	12	54.2	.....	85	31	24	2	43	1.77	.....	0.54	0	6	9	11	11	w.	A. J. Swift.
Warmsprings.....	Crook.....	1,500	11	56.8	+ 1.7	87	31	26	1	40	1.24	+ 0.44	0.50	0	8	8	13	5	w.	George W. Robbins.
Wasco.....	Sherman.....	1,263	.....	56.6	.....	87	31	35	1	37	2.00	.....	0.74	0	9	13	12	6	w.	J. R. Howell.
Weston.....	Umatilla.....	1,800	21	54.8	— 0.4	85	25	30	1	35	2.13	— 0.21	0.63	0	8	10	3	18	s.	M. A. Baker.
Whitaker.....	Crook.....	4,250	.....	48.0	.....	85	26	10	1	55	0.65	.....	0.19	0	7	14	13	4	w.	Frank Percival.
Williams.....	Josephine.....	1,368	21	56.7	+ 1.0	91	31	31	16	49°	1.26	— 0.34	0.35	0	7	17	7	7	n.	Francis J. LeRoy.
Yonna.....	Klamath.....	4,146	6	50.4	.....	85	28	18	1	51	0.44	.....	0.16	0	5	5	18	8	w.	Ward Rueck.

\*, b, c, etc., indicate respectively 1, 2, 3, etc., days missing from the record.

\*\* Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.

† Also on other dates.

T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for May, 1913. District No. 12, Columbia Valley.*

Stations.	Watershed.	Day of month.																															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total
<i>Montana.</i>																																	
Anaconda.	Missoula.	T.	T.	T.	.15	.08	T.	T.	T.	.02	*	.14	.24	T.	*	.06	*	.56	.12	.03	T.	T.	T.	T.	.29	.06					1.75		
Butte.	do.	T.	.15		T.	T.	.32	.10	.15	T.	.30	.05			.02	T.	.30	T.	T.	T.	T.	T.	T.	.18	T.					1.57			
Columbia Falls.	Flathead.																																1.35
Como.	Bitter Root.	.01																															1.29
Dayton.	Flathead.																																1.40
Deer Lodge.	Missoula.																																1.18
East Anaconda.	do.	T.	T.	T.	*.24	T.	T.	.02	.03	.04		*	.31	T.			*	.56	.10	.04	T.				.09	.04	.01					1.48	
Fortine.	Kootenai.																																1.60
Hamilton.	Bitter Root.	T.	T.	.19	.01																											1.12	
Hat Creek.	Missoula.	T.	T.	.60	.07																											3.04	
Haugan.	do.	.11	.08	.03																													1.43
Heron.	Columbia.																																2.55
Kalispell.	Flathead.																																0.92
Libby.	Kootenai.																																0.55
Missoula.	Missoula.	T.																															1.44
Ovando.	do.	T.	.24	.05	.02																											1.78	
Philipsburg.	do.																																1.66
Plains.	Columbia.																																1.72
Pleasant Valley.	Kootenai.																																1.53
Polson.	Flathead.																																1.47
St. Ignatius.	do.	.03	T.	.56	T.																												2.98
Saitese.	Missoula.	.08	.18	.11																													2.39
Stevensville.	Bitter Root.	T.																															0.96
Thompson Falls.	Columbia.																																1.52
Trot Creek.	do.																																2.86
Victor.	Bitter Root.																																0.72
Willow Glen Stock Farm.	Missoula.																																
<i>Wyoming.</i>																																	
Afton.	Snake.	.10	.20	T.																													.36
Alto.	do.																																2.02
Bechler River.	do.																																3.20
Bedford.	do.	.08	.12																														2.18
Moran.	do.	.05	.02	.03																													1.88
Snake River.	do.	.20	.03	T.	.20	T.																										3.07	
<i>Nevada.</i>																																	
San Jacinto.	Snake.																																.16
<i>Utah.</i>																																	.82
Standrod.	Raft.																																2.04
<i>Idaho.</i>																																	
Albion.	Snake.																																2.65
Almo.	do.																																2.15
American Falls.	do.																																0.10
Arrowrock.	Boise.																																1.80
Blackfoot   .	Blackfoot.																																2.53
Blackfoot Dam.	do.																																1.81
Bogus Creek.	Payette.																																0.58
Boise.	Bolse.																																2.09
Bonners Ferry.	Kootenai.																																1.79
Boulder Mine.	Boise.																																1.39
Buhl.	Snake.																																1.82
Caldwell.	Boise.																																1.02
Caldwell Exp. Sta.	do.	.03	.12	.02																													1.04
Cambridge.	Weiser.																																1.26
Cedar Creek Dam.	Snake.	.01	.08	.03																													1.26
Chesterfield.	Port Neuf.																																1.08
Clarks Fork.	Pend Oreille.	.04	T.																													1.39	
Coeur d'Alene.	Spokane.																																1.82
Council.	Weiser.																																1.80
Culdesac.	Clearwater.																																2.50
Dearly.	do.																																2.50
Driggs.	Snake.																																2.53
Emmett.	Payette.																																0.74
Forney.	Salmon.																																
Garnet.	Snake.																																
Geneva.	Bear.	.05	.11																														0.51
Glenns Ferry.	Snake.																																0.17
Gooding.	Big Wood.																																0.25
Grace.	Bear.	T.																															0.79
Grand Forks.	St. Joe.																																
Grand View.	Snake.																																0.23
Grimes Pass   .	Boise.																																1.43
Guffey.	Snake.																																1.43
Halley.	Big Wood.	T.	.06		T.	T.																										1.73	
Hollister.	Snake.	.01																															

TABLE 2.—*Daily precipitation for May, 1913. District No. 12—Continued.*

Stations.	Watershed.	Day of month.																														Total.			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
<i>Idaho—Continued.</i>																																			
Meridian.	Bolse.								T.	.20	T.		T.	.06		.01	T.	.55	T.															0.65	
Mess   .	Weiser.																																	1.32	
Middle Fork.	Clearwater.	.06																																	
Milner.	Snake.																																		0.08
Moore.	Lost River Region.																																	0.24	
Moscow.	Palouse.																																		2.70
Mountain Home.	Snake.																																		1.00
Murtaugh   .	do.																																		
New Meadows.	Salmon.																																		1.44
Nezperce.	Clearwater.																																		2.28
Oakley.	Snake.																																		1.36
O'Hara Bar.	Clearwater.																																		
Orofino.	do.																																		2.17
Paris.	Bear.																																		
Payette.	Payette.																																		0.54
Pierson.	Salmon.																																		0.75
Pleasant Valley.	Boise.																																		0.44
Pocatello.	Port Neuf.																																		2.44
Pocatello Nursery.	do.																																		
Poplar.	Snake.																																		2.59
Porthill.	Kootenai.																																		1.95
Priest River Experiment Station:																																			
No. 1.	P. d'Oreille.	T.	.02	.01																														2.23	
No. 2.	do.	T.	.03																															2.11	
No. 3.	do.	T.	.01																															2.24	
Pyle Creek.	Payette.																																		1.48
Ridgfield.	Big Wood.																																		0.32
Rogerson.	Snake.																																		1.25
Roseberry.	Payette.																																		
Roseworth.	Snake.																																		0.76
Rupert.	do.																																		1.26
St. Anthony.	St. Joe.																																		
St. Maries.	Clearwater.	.15																																	2.11
St. Michaels Priory.	Salmon.																																		
Sandpoint.	P. d'Oreille.																																		0.89
Sheep Hill.	Boise.																																		3.02
Shoshone.	Big Wood.																																		0.69
Silver City.	Owyhee.																																		1.34
Soldier Creek.	Big Wood.	.01																																	1.64
Spirit Lake.	P. d'Oreille.																																		0.92
Springfield.	Snake.																																		1.89
Spring Hill.	Boise.																																		0.81
Sugar   .	Snake.																																		2.91
Sunnyside.	do.																																		
Trippon Mountain.	Payette.																																		1.10
Twin Falls.	Snake.																																		0.75
Vernon.	do.																																		2.39
Wallace.	C. d'Alene.																																		2.91
Weiser.	Weiser.																																		1.37
Wendell.	Big Wood.																																		0.46
Weston.	Bear.	.05																																	1.16
<i>Washington.</i>																																			
Aberdeen.	Coast.	.18	.04	.07																														3.69	
Anacortes.	Puget Sound.	.05	.02																															1.93	
Anatone.	Snake.	T.																																	2.89
Baker.	Puget Sound.	T.	.10	.10	T.																												2.80		
Bellingham (near).	do.																																	1.94	
Blaine.	do.																																	3.12	
Blewett.	Wenatchee.																																		1.28
Bremerton.	Puget Sound.																																		2.71
Brewster.	Columbia.																																		2.89
Buckley.	Puget Sound.																																		1.53
Bumping Lake.	Yakima.																																		3.29
Centralia.	Puget Sound.	.05	.04																																

TABLE 2.—*Daily precipitation for May, 1913. District No. 12—Continued.*

TABLE 2.—Daily precipitation for May, 1913. District No. 12—Continued.

Stations.	Watershed.	Day of month.																														Total.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Oregon—Continued.																																		
Black Butte.....	Willamette.....																																	3.05
Blalock.....	Columbia.....																																1.18	
Blue Mt. Sawmill.....	Umatilla.....																																2.49	
Brogan.....	Malheur.....																																	
Buena Vista.....	Snake.....																																2.86	
Burns.....	SE. drainage.....	.01		.03																													0.25	
Burns Mill.....	SE. drainage.....																																0.27	
Butte Falls.....	Rogue.....																																1.96	
California Gulch.....	Umatilla.....																																3.40	
Cascade Locks.....	Columbia.....																																3.30	
Cascadia.....	Willamette.....	.12	.01	.03																													4.66	
Cazadero.....	do.....	.06	.04	.03																													3.10	
Central Point.....	Rogue.....																																1.39	
Christmas Lake.....	SE. drainage.....																																1.08	
Clear Lake.....	Willamette.....	.06	.03	.02																													4.23	
Cliff.....	SE. drainage.....																																0.85	
Columbia Mine.....	Snake.....																																2.96	
Condon.....	John Day.....																																1.71	
Coquille River L. H. Coast.....	do.....																																2.27	
Cornucopia.....	Snake.....																																2.39	
Corvallis.....	Willamette.....	T.																															1.89	
Cracker Creek.....	Snake.....	T.																															1.63	
Crescent.....	Deschutes.....																																1.23	
Dayville.....	John Day.....																																2.66	
Deadwood.....	SE. drainage.....	.01																															1.25	
Diamond.....	do.....																																2.19	
Doraville.....	Columbia.....	.02	.01																														1.73	
Drain.....	Umpqua.....																																0.55	
Dufur.....	Columbia.....																																1.26	
Echo.....	Umatilla.....																																0.55	
Ella.....	Columbia.....																																1.08	
Embody.....	SE. drainage.....																																1.10	
Eugene.....	Willamette.....																																2.80	
Fairview.....	Coast.....																																0.86	
Fir Glen.....	do.....																																0.72	
Florence.....	do.....																																1.62	
Folly farm.....	Malheur.....																																0.84	
Forest Grove.....	Willamette.....																																1.26	
Fort Rock.....	SE. drainage.....																																	0.48
Gailee.....	Rogue.....																																1.26	
Gardiner.....	Umpqua.....																																0.55	
Gibson.....	Umatilla.....																																1.24	
Glencoe.....	Deschutes.....																																3.53	
Glenora.....	Columbia.....																																2.54	
Gold Beach.....	Rogue.....																																1.83	
Golden Falls.....	Coast.....																																2.72	
Grants Pass.....	Rogue.....																																1.44	
Grass Valley.....	John Day.....																																2.21	
Greenhorn.....	Snake.....	T.	T.	.01																													1.94	
Gumboot.....	do.....																																0.65	
Gurdane.....	Columbia.....																																0.26	
Happy Home.....	Umpqua.....	.38																															4.42	
Harbor.....	Coast.....																																3.31	
Hay Creek.....	Deschutes.....																																1.84	
Hazeldell.....	Willamette.....																																2.03	
Headworks.....	do.....																																3.91	
Heppner.....	Columbia.....																																1.39	
Hermiston.....	Umatilla.....																																0.59	
Hilgard.....	Grand Ronde.....																																2.60	
Hillcrest Orchard.....	Rogue.....																																	
Hood River.....	do.....																																1.05	
No. 2.....	Columbia.....	.02																															1.23	
No. 3.....	do.....																																1.18	
No. 4.....	do.....																																1.47	
Hoover.....	Willamette.....	.10	.06	.09																												3.99		
Howardville.....	Gra'e Ronde.....																																	

TABLE 2.—*Daily precipitation for May, 1913. District No. 12—Continued.*

\* Precipitation included in that of the next measurement.

† Separate dates of falls not recorded.  
¶ Precipitation for the 24 hours ending

T. Precipitation is less than 0.01 inch rain or melted snow.

1. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—Maximum and minimum temperatures at selected stations for May, 1913. District No. 12, Columbia Valley.

Date.	Montana.				Idaho.																							
	Kalispell.		Missoula.		Afton, Wyo.		Boise.		Bonners Ferry.		Hotspring.		Lewiston.		Mackay.		New Meadows.		Pocatello.		Salmon.		Shoshone.		Vernon.		Wallace.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.		
1.....	48	25	50	26	40	23	54	35	49	24	50	25	58	37	55	28	46	24	50	34	59	16	58	21	45	30	48	26
2.....	54	28	52	32	40	20	57	28	60	28	63	32	65	35	53	24	52	24	50	32	61	28	56	23	50	24	55	28
3.....	51	34	47	40	53	21	60	35	61	40	66	31	63	45	57	26	49	26	57	34	61	31	59	32	58	20	52	37
4.....	47	27	50	32	55	35	62	41	52	24	67	35	61	50	61	33	48	34	60	46	59	40	62	35	61	39	51	30
5.....	51	35	52	35	64	25	74	41	60	28	76	39	75	44	66	35	54	28	69	42	72	40	72	33	65	29	64	39
6.....	64	32	72	31	69	29	83	48	68	28	87	44	83	43	73	34	54	30	77	42	80	28	82	45	73	31	74	32
7.....	71	42	76	37	73	31	78	55	74	34	85	50	83	46	73	45	74	48	80	50	80	49	87	51	76	38	76	38
8.....	65	44	65	46	75	33	76	48	62	44	82	46	85	60	70	41	70	42	75	46	79	44	79	46	75	47	72	48
9.....	65	40	70	48	74	30	74	54	60	45	80	50	65	53	72	38	68	40	75	43	79	42	76	51	77	38	60	42
10....	62	37	67	36	73	31	70	45	53	35	77	45	67	47	70	45	64	44	69	46	72	37	72	42	72	39	65	39
11....	60	38	59	42	63	34	64	41	60	37	74	38	68	48	65	35	65	34	63	45	70	38	66	38	73	39	58	42
12....	59	31	62	36	63	33	65	45	52	32	78	45	59	46	64	35	62	46	64	41	70	41	70	42	56	37	57	33
13....	59	39	64	42	56	32	58	40	62	34	65	45	63	45	51	36	52	32	56	38	60	42	58	37	52	39		
14....	55	33	58	30	52	38	65	35	50	35	70	34	61	39	57	30	54	25	60	36	67	24	63	30	54	32	50	32
15....	54	37	58	39	66	31	63	48	52	38	75	47	66	48	58	32	58	38	64	49	68	41	67	40	57	41	55	37
16....	47	35	57	34	58	34	62	40	54	32	69	44	65	41	57	31	59	29	61	48	64	37	64	40	59	39	58	36
17....	58	33	57	30	62	33	67	48	52	41	77	44	61	43	60	38	55	38	69	44	67	31	74	45	62	37	57	31
18....	55	41	48	43	64	31	58	44	53	38	75	50	58	49	57	40	56	38	56	39	60	44	59	47	53	42	45	43
19....	58	38	56	41	44	32	63	40	60	38	69	43	62	48	55	35	58	33	56	36	59	41	65	37	51	36	56	42
20....	62	41	58	42	55	36	66	47	62	39	73	50	69	44	56	37	66	33	57	45	66	42	66	46	49	37	59	42
21....	65	36	70	32	60	32	76	47	70	35	82	50	77	44	68	35	71	28	66	40	76	33	76	36	62	35	70	35
22....	73	38	75	38	70	30	84	49	75	41	88	45	86	47	68	34	78	32	75	45	83	33	84	46	70	36	78	39
23....	68	45	67	42	73	32	82	59	76	41	90	54	79	55	64	33	72	40	79	51	82	37	76	43	76	43	76	43
24....	76	42	77	40	74	35	82	56	77	46	80	52	84	49	72	39	76	38	79	48	81	41	85	49	74	44	79	42
25....	77	48	80	44	74	43	84	54	70	45	89	54	84	54	75	40	76	38	80	50	87	46	84	50	74	40	78	44
Mns.	62.9	38.9	65.5	39.4	64.7	33.2	71.5	46.6	63.0	37.9	77.6	45.7	71.7	47.3	65.0	37.0	63.3	37.0	68.6	44.6	73.4	38.7	73.0	41.8	66.0	38.4	64.4	39.3

Date.	Weston Idaho.		Washington.																							
			Aberdeen.		Blaine.		Colville.		Kosmos.		Lakeside.		North Head.		North Yakima.		Odessa.		Port Crescent.		Seattle.		Sixprong.		Spokane.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1.....	49	31	54	41	56	42	56	24	48	35	61	37	47	42	60	34	58	26	51	41	52	42	53	36	51	40
2.....	52	26	56	44	54	44	64	27	60	39	67	42	50	45	71	32	63	28	50	40	55	44	58	35	57	42
3.....	59	21	56	46	54	46	61	30	50	42	63	42	49	46	68	43	64	39	50	43	51	45	59	38	54	45
4.....	69	32	57	40	55	41	59	27	68	48	64	36	53	45	66	41	61	31	49	38	55	42	55	35	55	42
5.....	72	29	70	34	58	34	70	28	84	35	68	41	54	45	70	40	68	38	57	30	60	45	65	37	60	44
6.....	78	32	82	40	64	32	78	30	76	32	76	41	80	49	78	41	78	36	64	40	67	46	73	40	67	45
7.....	80	37	60	50	64	38	82	37	70	38	75	46	53	45	80	48	82	39	56	39	60	45	79	44	61	45
8.....	79	40	58	38	59	47	73	52	63	44	69	53	56	51	80	54	80	57	57	44	60	51	75	56	59	50
9.....	79	37	60	45	56	48	65	49	55	46	62	50	56	51	70	52	72	50	54	41	58	48	75	50	57	44
10....	77	36	54	47	60	44	64	46	55	39	59	41	52	47	64	43	59	37	57	40	60	47	79	45	57	46
11....	70	48	60	46	59	46	66	45	55	42	65	42	53	46	64	46	68	38	64	39	54	41	57	46	61	46
12....	67	38	58	41	59	45	61	43	57	43	66	44	52	48	68	37	62	42	52	38	57	45	59	43	57	45
13....	65	38	60	44	59	41	62	42	58	40	68	42	53	47	68	38	63	33	52	36	56	44	55	41	58	42
14....	64	28	61	44	56	44	57	38	53	43	66	47	50	48	64	45	60	40	52	42	54	46	63	40	55	45
15....	66	34	57	44	58	45	60	37	65	40	66	40	53	47	69	40	66	40	55	40	57	47	63	42	57	46
16....	77	46	63	38	57	46	65	30	56	42	70	39	52	45	68	37	64	34	54	36	58	44	62	38	58	43

TABLE 3.—*Maximum and minimum temperatures at selected stations for May, 1913. District No. 12—Continued.*

Date.	Washington.				Oregon.																					
	Tatoosh Island.		Walla Walla.		Ashland.		Baker.		Eugene.		Gold Beach.		Hermiston.		Marshfield.		Portland.		Prineville.		Roseburg.		The Dalles.		Vale.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1.....	48	42	58	38	55	35	47	27	72	34	.....	.....	64	40	57	34	51	41	.....	.....	54	37	61	38	59	34
2.....	50	44	64	40	63	31	54	33	70	36	.....	.....	70	33	59	32	61	46	.....	.....	66	33	69	41	64	32
3.....	49	44	61	46	67	38	54	35	75	34	.....	.....	70	49	61	45	61	47	.....	.....	65	41	67	49	72	37
4.....	50	43	63	44	72	40	55	37	78	38	.....	.....	75	40	66	37	62	44	.....	.....	71	47	68	43	75	35
5.....	52	40	72	45	79	44	70	34	82	42	.....	.....	76	37	71	39	73	46	.....	.....	79	40	74	40	80	34
6.....	57	45	81	50	82	48	77	39	75	40	.....	.....	83	35	62	44	84	50	.....	.....	86	47	81	42	86	38
7.....	52	47	78	55	76	55	73	45	68	32	.....	.....	82	39	64	48	69	50	.....	.....	72	48	80	49	85	47
8.....	55	46	83	55	67	46	72	44	69	33	.....	.....	84	48	60	45	62	52	.....	.....	64	40	76	53	81	44
9.....	52	45	64	51	64	41	63	48	70	37	.....	.....	72	42	62	45	65	50	.....	.....	64	47	68	50	71	50
10.....	51	46	62	46	61	45	60	40	72	40	.....	.....	71	41	60	48	59	50	.....	.....	62	49	63	46	73	42
11.....	50	47	67	47	60	36	59	35	73	42	.....	.....	72	39	55	46	55	47	.....	.....	62	47	67	41	68	32
12.....	52	45	61	46	55	40	49	39	70	34	.....	.....	70	46	60	46	62	48	.....	.....	59	45	67	43	70	40
13.....	52	44	61	45	57	40	51	33	64	30	.....	.....	65	41	60	42	60	45	.....	.....	62	42	67	41	65	41
14.....	50	44	61	46	63	37	58	29	60	31	.....	.....	64	45	58	38	54	47	.....	.....	63	42	62	46	68	27
15.....	52	44	65	47	65	41	62	40	68	34	.....	.....	64	43	55	48	60	47	.....	.....	63	48	67	44	72	47
16.....	56	46	65	43	70	42	56	33	70	36	.....	.....	70	41	66	37	62	41	.....	.....	66	43	69	43	69	40
17.....	57	46	61	45	71	43	59	43	72	40	.....	.....	71	40	54	49	56	49	.....	.....	58	48	67	50	69	48
18.....	53	49	54	47	61	42	50	35	75	41	.....	.....	69	41	59	42	61	49	.....	.....	63	47	68	48	62	47
19.....	56	48	62	47	65	39	54	35	77	38	.....	.....	70	45	60	37	65	46	.....	.....	68	43	72	44	70	35
20.....	56	48	71	49	71	45	62	39	69	32	.....	.....	75	37	63	36	71	46	.....	.....	74	44	77	42	75	49
21.....	54	49	78	51	77	46	72	36	78	50	.....	.....	82	40	64	47	76	47	.....	.....	75	41	80	48	79	38
22.....	59	49	82	57	79	49	80	42	76	48	.....	.....	85	43	65	44	76	49	.....	.....	82	43	85	53	87	38
23.....	56	48	82	60	79	41	73	51	78	44	.....	.....	87	53	65	50	73	54	.....	.....	80	49	86	53	86	55
24.....	64	48	81	57	80	49	74	40	76	40	.....	.....	86	47	64	41	76	50	.....	.....	80	45	84	52	85	52
25.....	56	48	83	60	80	50	79	44	78	46	.....	.....	88	50	74	40	80	53	.....	.....	86	44	85	56	95	49
26.....	56	48	87	61	83	54	84	48	76	42	.....	.....	79	46	70	51	66	58	.....	.....	77	52	87	56	92	46
27.....	57	48	70	54	67	47	75	52	78	44	.....	.....	80	47	58	50	59	53	.....	.....	62	50	77	55	86	60
28.....	55	48	66	55	55	44	59	48	75	40	.....	.....	83	47	60	45	68	50	.....	.....	60	48	71	54	72	58
29.....	56	47	74	49	71	42	66	42	76	42	.....	.....	83	48	60	38	72	45	.....	.....	72	42	78	51	78	50
30.....	55	49	84	52	80	44	75	45	82	42	.....	.....	87	41	62	45	76	52	.....	.....	82	44	87	52	87	52
31.....	60	49	88	53	88	50	80	49	84	46	.....	.....	92	41	67	43	84	57	.....	.....	88	51	99	56	89	55
Mns.....	53.8	46.3	70.6	49.9	69.8	43.4	64.6	40.0	73.7	39.0	.....	.....	76.4	42.7	62.0	43.1	66.4	48.7	.....	.....	69.8	45.0	74.2	47.7	76.5	43.6

\*, b, c, etc., indicate respectively 1, 2, 3, etc., days missing from the record.

§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.